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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/548,311	09/07/2005	Keith Hart	SMB-PT157(PC 04 01 B US)	6123

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EXAMINER	
RIVELL, JOHN A	

ART UNIT	PAPER NUMBER
3753	

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11/19/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/548,311	HART, KEITH	
	Examiner	Art Unit	
	JOHN RIVELL	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *9/16/09 (RCE)*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3,13,21,22,24-34 and 36-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *21,30-34 and 40* is/are allowed.

6)☒ Claim(s) *3,13,22,28,29 and 36-38* is/are rejected.

7)☒ Claim(s) *24-27 and 39* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 16, 2009 has been entered.

Claims 1-2, 4-12, 14-20, 23 and 35 have been canceled. Claims 3, 13, 21, 22, 24-34 and 36-40 remain pending.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 3, 13, 28, 29, 37 and 38 are rejected under 35 U.S.C. §102 (b) as being anticipated by Hart (WIPO No. WO 01/04714; relying on U.S. Pat. No. 6,571,831 for translation purposes only).

The International publication to Hart discloses, in figure 2 for example, a "through-flow regulator (generally at 1), that is insertable into a (inherent) gas or liquid line (see US col. 4, lines 4-10), comprising a housing (components 2 and 4), with at least one throttle or regulating body (the exterior surface of o-ring 55) being arranged inside said housing (2, 4), defining a control gap (the "gap" is located between the inner periphery the housing 4 and the cooperating external face of the housing 4) between the throttle or regulating body (the outside of 5) and a housing (4) wall, at least one

housing wall (at the wall of housing 4) limiting the control gap is provided with a regulating profiling in the form of ribs or grooves (8), extending in the flow through direction, with the control gap (the "gap" between these surfaces) changing depending on pressure (as the pressure rises the gap decreases, as the pressure falls the gap increases) to regulate flow in a flow through direction, the housing (2, 4) is comprised of at least two housing parts (2 and 4) and between the facing sides of two housing parts, a housing seal (the remainder of o-ring 5) is provided, which is integrally connected in one piece to the at least one throttle body or regulating body (the outside of 5) supported inside the housing (2, 3)" as recited in clam 3.

Regarding claim 13, in Hart (WIPO), "the throttle body (the outside surface of o-ring 5 as well as o-ring 5 itself) is mounted in a housing chamber (a inherent chamber formed between housing parts 2 and 4 that accommodates seal 5) between the upstream (2) and the downstream (4) housing part and the downstream housing part (4) is provided with an interior housing wall (e.g. the exterior surfaces of the part 4) forming a limit of the control gap or a similar rest for the annular throttle body (the outside of 5)" as recited.

Regarding claim 28, in Hart (WIPO), "at least one of the housing parts (housing part 4) comprises at least two approximately concentric annular walls (one wall read at the outer surface of the part 4 including groove 8, the other wall read at the circular periphery that cooperates with the grooves 7 of the other housing part 2, these two "approximately concentric walls" being) connected via approximately radial connection

bars" read on inherent spider like arms connecting base 4 to the outer periphery cooperating with groove 7, located between ports shown below seal 5 of figure 1.

Regarding claim 29, in Hart (WIPO) "at least one of the connection bars (believed to be inherent as explained above) arranged downstream of the throttle body (the outer surface of seal 5) is embodied as a control stop or as a throttle body support". Here, as illustrated in figure 1 it is believed that the inherent "connection bar" acts as a "throttle body (5) support".

Regarding claim 37, in Hart (WIPO), "a central housing portion of a first housing part (4) engages a (inherent) central recess of a second housing part (2)" so as to be supported relative thereto.

Regarding claim 38, in Hart (WIPO) "the housing seal (at o-ring 5) is connected on both (i.e. opposite) sides to at least one throttle body (the opposite sides of o-ring 5 form a control gap with respect to flow in opposite directions forming such a "gap" at the groove 8 as well as at port 6), said throttle bodies (i.e. opposed sides of o-ring 5) are each supported on the inside of said housing (2, 4) in a respective control gap" at 8, 6, as recited.

Claims 3, 13, 28 and 37 are further, and claims 22 and 36 is rejected under 35 U.S.C. §102 (b) as being anticipated by Weese (U.S. Pat. No. 3,409,050).

The patent to Weese discloses, in figure 2 for example, a "through-flow regulator (generally illustrated in figure 2), that is insertable into a (inherent) gas or liquid line (by threaded connections at inlet 20 and outlet 18), comprising a housing (components 2 and 10), with at least one throttle or regulating body (the resilient diaphragm 14) being

arranged inside said housing (2, 10), defining a control gap (the "gap" is located between the inner periphery the edge 16 of the hole in the diaphragm and the cooperating external face of the housing 10) between the throttle or regulating body (14) and a housing (10) wall, at least one housing wall (at the wall of housing 10) limiting the control gap is provided with a regulating profiling in the form of ribs or grooves (40), extending in the flow through direction, with the control gap (the "gap" between these surfaces) changing depending on pressure (as the pressure rises the gap decreases, as the pressure falls the gap increases) to regulate flow in a flow through direction, the housing (2, 10) is comprised of at least two housing parts (2 and 10) and between the facing sides of two housing parts, a housing seal (the exterior periphery of diaphragm 14) is provided, which is integrally connected in one piece to the at least one throttle body or regulating body (14) supported inside the housing (2, 10)" as recited in clam 3.

Regarding claim 13, in Weese, "the throttle body (14) is mounted in a housing chamber (a chamber formed between housing parts 2 at 22, and 10 at the top of element 28 seal 14) between the upstream (2) and the downstream (10) housing part and the downstream housing part (10) is provided with an interior housing wall (e.g. the exterior surfaces of the part 10) forming a limit of the control gap or a similar rest for the annular throttle body (14)" as recited.

Regarding claim 22, in Weese, "the at least one throttle body (14) is lipped shaped" as recited.

Regarding claim 28, in Weese, ""at least one of the housing parts (10) comprises at least two approximately concentric annular walls (one wall read at the outer surface

of the part 10 including groove 40, the other wall read at the circular periphery of outer wall 28, being) connected via approximately radial connection bars" read on inherent spider like arms connecting part 10 to the outer peripheral wall 28, located between ports 32 of figure 2 of Weese.

Regarding claim 36, in Weese, "the housing components (2, 10) are provided with annular surfaces (the downstream facing surface of flange 22 of part 2 and the upstream facing surface of top of annular surface 28) facing one another, between which the housing seal (at the periphery of diaphragm 14) is clamped" as recited.

Regarding claim 37, in Weese, "a central housing portion (internal part 10 and flange /annular wall 28) of a first housing part (10) engages a (inherent) central recess of a second housing part (2)" so as to be supported relative thereto.

Claims 21, 30-34 and 40 are allowed.

Claims 24-27 and 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN RIVELL whose telephone number is (571) 272-4918. The examiner can normally be reached on Mon.-Fri. from 6:00am-2:30pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Rivell/
John Rivell
Primary Examiner
Art Unit 3753